IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT:	da Costa e Silva, et al.		
SERIAL NUMBER:	10/764,259	GROUP:	1638
FILING DATE:	January 23, 2004	EXAMINER:	Collins
TITLE:	PHOSPHATASE STRESS-RELATED PROTEINS AND METHODS OF USE IN PLANTS		

Commissioner for Patents
PO Box 1450
Alexandria, VA 22313-1450

Sir:

DECLARATION PURSUANT TO 37 C.F.R. § 1.132

In support of the above-identified application, Ruoying Chen states the following:

1. I obtained my Bachelor of Science in Biophysics from Fudan University of China, and my Master of Science in Biochemistry from State University of New York at Binghamton in 1994. From 1994 to 2000, I was a biochemist/molecular biologist at Pioneer Hi-Bred International, Inc. From 2000 to 2005, I was a bioinformatician at BASF Plant Science L.L.C. I have more than ten years' experience in the field of Biology and more than five years' experience in the bioinformatics field. I am a coinventor in the above-identified application.

2. I have performed a protein sequence comparison using Vector NTI application (Invitrogen, 1600 Faraday Ave.; Carlsbad, CA92008) at default settings between the *Physcomitrella patens* PP2A-4 protein disclosed as SEQ ID NO:13 in the above-identified application and the protein sequences of the five serine-threonine phosphatases set forth in Table 4 of the application, Q07098, Q07099, Q9MB05, Q9MB06, and Q9ZSE4. The results are shown in Exhibit 1 attached hereto.

3. The Prosite database (product of the Swiss Institute of Bioinformatics, http://www.isb-sib.ch/) search identifies the Serine/Threonine phosphatase motif as including the amino acids leucine-arginine-glycine-asparagine-histidine-glutamic acid, designated as LRGNHE in Exhibit 1.

All statements made herein of declarant's knowledge are true, and all statements made on declarant's information and belief are believed to be true. The statements made herein were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Date: 08/15/2006

Ruoying Chen

Exhibit 1

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                    1                                      40
SEQ ID NO:13    (1)  MPSYADVDRQIEQLSECKPLSELEVKNLCDQART ILVEEW
     Q07098     (1)  MPSNGDLDRQIEQLMECKPLSEADVRTLCDQARAILVEEY
     Q07099     (1)  MPLNGDLDRQIEQLMECKPLGEADVKILCDQAKAILVEEW
     Q9MB05     (1)  MPSQADLDRQIEHLMECKPLTESEVKALCDQARAILVEEW
     Q9MB06     (1)  MPSHADLDRQIEHLMECKPLPEADVKALCDQARAILVEEW
     Q9ZSE4     (1)  MPSHGDLDRQIEHLMECKPLPEARGQTLCDQARAILVEEW
  Consensus     (1)  MPSNADLDRQIEQLMECKPLSEADVK LCDQARAILVEEW

                    41                                     80
SEQ ID NO:13   (41)  NVQPVKCPVTVCGDIHGQFHDLIELFRIGGKAPDTNYLFM
     Q07098    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGNAPDTNYLFM
     Q07099    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGNAPDTNYLFM
     Q9MB05    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGHAPHTNYLFM
     Q9MB06    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGNAPDTNYLFM
     Q9ZSE4    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGNAPDTNYLFM
  Consensus    (41)  NVQPVKCPVTVCGDIHGQFYDLIELFRIGGNAPDTNYLFM

                    81                                    120
SEQ ID NO:13   (81)  GDYVDRGYYSVETVSLLVALKVRYRDRITILRGNHESRQI
     Q07098    (81)  GDYVDRGYYSVETVSLLVALKVRYRDRITILRGNHESRQI
     Q07099    (81)  GDYVDRGYYSVETVSLLVALKVRYRDRITILRGNHESRQI
     Q9MB05    (81)  GDYVDRGYYSVETVTLLVALKVRYRDRITILRGNHESRQI
     Q9MB06    (81)  GDYVDRGYYSVETVSLLVALKVRYRDRITILRGNHESRQI
     Q9ZSE4    (81)  GDYVDRGYYSVETVTLLVALKVRYRDRITILRGNHESRQI
  Consensus    (81)  GDYVDRGYYSVETVSLLVALKVRYRDRITILRGNHESRQI

                    121                                   160
SEQ ID NO:13  (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIEHEQ
     Q07098   (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIESQV
     Q07099   (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIESQV
     Q9MB05   (121)  TQVYGFYDECLRKYGNANVWKEFTDLFDYLPLTALIESQV
     Q9MB06   (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIESQI
     Q9ZSE4   (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIESQT
  Consensus   (121)  TQVYGFYDECLRKYGNANVWKYFTDLFDYLPLTALIESQI

                    161                                   200
SEQ ID NO:13  (161)  FCLHGGLSPSLDTLDHIRALDRIQEVPHEGPMCDLLWSDP
     Q07098   (161)  FCLHGGLSPSLDTLDNIRSLDRIQEVPHEGPMCDLLWSDP
     Q07099   (161)  FCLHGGLSPSLDTLDNIRSLDRIQEVPHEGPMCDLLWSDP
     Q9MB05   (161)  FCLHGGLSPSLDTLDNIRALDRIQEVPHEGPMCDLLWSDP
     Q9MB06   (161)  FCLHGGLSPSLDTLDNIRALDRIQEVPHEGPMCDLLWSDP
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        Q9ZSE4  (161) FCLHGGLSPSLDTLDNIRALDRIQEVPHEGPMCDLLWSDP
     Consensus  (161) FCLHGGLSPSLDTLDNIRALDRIQEVPHEGPMCDLLWSDP


                      201                                   240
SEQ ID NO:13  (201) DDRCGWGISPRGAGYTFGQDIAEQFNHTNGLSLVARAHQL
        Q07098  (201) DDRCGWGISPRGAGYTFGQDIAAQFNHHNGLSLISRAHQL
        Q07099  (201) DDRCGWGISPRGAGYTFGQDIATQFNHHNGLSLISRAHQL
        Q9MB05  (201) DDRCGWGISPRGAGYTFGQDIASQFNHTNGLSLISRAHQL
        Q9MB06  (201) DDRCGWGISPRGAGYTFGQDIAAQFNHTNGLSLISRAHQL
        Q9ZSE4  (201) DDRCGWGISPRGAGYTFGQDIAAQFNHTNGLTLISRAHQL
     Consensus  (201) DDRCGWGISPRGAGYTFGQDIAAQFNHTNGLSLISRAHQL


                      241                                   280
SEQ ID NO:13  (241) VMEGYNWCQEKNVVTVFSAPNYCYRCGNMAAIMEIDETMN
        Q07098  (241) VMEGFNWCQEKNVVTVFSAPNYCYRCGNMAAILEIGENME
        Q07099  (241) VMEGYNWCQEKNVVTVFSAPNYCYRCGNMAAILEIGEKME
        Q9MB05  (241) VMEGYNWAQEKNVVTVFSAPNYCYRCGNMAAILEIGENMD
        Q9MB06  (241) VMEGYNWCQEKNVVTVFSAPNYCYRCGNMAAILEIGENMD
        Q9ZSE4  (241) VMEGYNWCQEKNVVTVFSAPNYCYRCGIMAAILEIGENMA
     Consensus  (241) VMEGYNWCQEKNVVTVFSAPNYCYRCGNMAAILEIGENMD


                      281                     307
SEQ ID NO:13  (281) RSFLQFEPAPRQSEPDVTRKTPDYFL-
        Q07098  (281) QNFLQFDPAPRQVEPDTTRKTPDYFL-
        Q07099  (281) QNFLQFDPAPRQVEPDTTRKTPDYFL-
        Q9MB05  (281) QNFLQFDPAPRQIEPDTTRKTPDYFL-
        Q9MB06  (281) QNFLQFDPAPRQIEPDTTRKTPDYFL-
        Q9ZSE4  (281) QNFLQFDPAPRQIEPDTTRKTPDYFL-
     Consensus  (281) QNFLQFDPAPRQIEPDTTRKTPDYFL
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Note: The underlined area is the Serine/Threonine phosphatase motif (LRGNHE) identified using the Prosite database.